

AMATEUR RADIO

AUGUST 1990

RRP \$3



THE WIA RADIO AMATEUR'S JOURNAL

AMATEUR RADIO IN THE USSR

THIS IS THE FIRST OF A TWO-PART ARTICLE WRITTEN FOR THE WIA JOURNAL, AMATEUR RADIO MAGAZINE, BY YURY ZOLOTOV UA3HR, A PROMINENT MEMBER OF THE USSR FEDERATION OF RADIO SPORT.

The amateur radio movement began in the early 1920s along with the commencement of radio broadcasting. The first broadcast station went on air in Moscow in 1922. Regular broadcasts then on the long and medium waves only began from October 12, 1924. At about the same time, a movement of radio amateur enthusiasts sprang up in the country. Many began to build radio sets themselves. In those years more than 80 per cent of sets operated by the population were home-made. On August 7, 1924, the Society of Radio Amateurs of the Russian Federation was set up, later renamed the Society of Radio Friends. In 1926, with the setting up of similar societies in other republics, the first nationwide congress of such societies met. At that time there were over 200,000 radio amateurs in the country. The congress decided to take action to spread the knowledge about radio among the population.

In 1922, radio amateurs in the US, France, Britain and Germany began using shortwaves, then considered useless for radio communication. An intercontinental link on shortwaves between US amateurs (1MO) and France (8AB) was a sensation. Soviet radio amateurs took up shortwave activity with great enthusiasm. The first to build a shortwave amateur radio station in the Soviet Union was Fedor Lbov, an accountant by profession. On January 15, 1925, he and his friend V Petrov went on air in the 96-metre band. For a while they sent Morse: CQ CQ CQ de R1FL pse kkk. The callsign had been invented by them. R1FL stood for Russia First Fedor Lbov. The transmitter had a capacity of 15 Watts and, because they had no receiver, the station's address was transmitted in the hope of reception reports. Two days later, Lbov received a telegram from Iraq where an English radio amateur (G5HS), at the time in Iraq, picked up the signals of the R1FL.

Government encourages shortwave experiments

Soon after this history-making event, the Soviet Government gave official permission for radio amateurs to build and operate their own shortwave stations. In 1927, the first nationwide competitions

in shortwave communications were held, mainly on the 20-metre band. Then, in the following year, the first international radio communication competitions were organised. Soviet and Spanish radio amateurs set up links on shortwaves. That was a time when Arctic exploration began on a wide scale. It was radio amateurs who introduced shortwave communication into that area of activity.

On May 25, 1928, the airship Italia crashed in the Arctic while carrying an expedition of Umberto Nobile to the North Pole. It was not until June 3, when an SOS was picked up by a Soviet radio amateur N Schmidt, that the location of the disaster was known. He immediately passed on to Moscow the co-ordinates of the survivors' camp. The Soviet ice-breaker Krasin went to the site and lifted seven to safety.

In 1937 the first Soviet scientific expedition led by Ivan Papanin was landed on the North Pole, consisting of four men including radio operator Ernst Krenkel. The callsign of the drifting station UPOL won unusual popularity around the world.

Later on, for his services in saving crew members from the ice-crushed steamer Chelyuskin, Krenkel was allowed to use for radio amateur activity the Chelyuskin call letters RAEM.

Hero Krenkel inspires Soviet youth

Krenkel had become a national hero. Many thousands of youths and girls followed his example, taking up radio and studying Morse code. The Krenkel Central Radio Club has a memorial work station of this legendary shortwave enthusiast, outstanding polar explorer and public figure.

In the early 1930s, Soviet radio amateurs began using the then so-called ultra high frequencies. Several dozen articles on equipment and specifics were published.

War stops amateur radio activity

In the autumn of 1939 amateur stations in Britain, France, Poland and Canada went off the air due to the outbreak of World War II. They were fol-

lowed by radio amateurs in Australia, New Zealand, India, Belgium, Norway, Sweden and many other countries.

Soviet amateurs remained active up to the summer of 1941. It was only the perfidious attack by Nazi Germany on the Soviet Union that put an end to amateur radio activity. The Soviet Union entered the war. In the first days thousands of radio amateurs joined the Red Army, becoming officers and soldiers of communications units.

After the war, as a tribute to war veteran radio amateurs, they were allowed callsigns that had only one letter in the prefix. Some 500 of these veterans survive today.

On May 2, 1945, on the eve of the Soviet Union victory over Hitler's Germany, the Soviet Government instituted Radio Day as an annual holiday. This was done as a recognition of radio amateur activities, and as a token of the need to develop radio-electronics as one of the significant and effective forms of public work.

Radio amateurs play role in post-war era

In March 1946, the Central Radio Club of the USSR was set up in Moscow — a centre for amateur radio sport and design. That marked the beginning of a new, post-war period in the amateur radio movement.

In the next decades, radio amateurs have joined in intensive scientific and technological programs in radio-electronics. New technologies and new components not only helped to upgrade amateur equipment, but also gave rise to entirely new activities.

The launching on October 4, 1957, of the first artificial Earth satellite, carried out in the Soviet Union, heralded the use of future satellites for amateur communications in the RS1-RS11 series.

Organisation and IARU involvement

On October 8, 1959, the USSR Federation of Radio Sport was set up. Its presidency has committees and commissions on various radio amateur and radio sport activities.



Alla and Yuri Zolotov – famous Moscow radio amateurs. Photo shows the Zolotov couple at home in their radio studio. They are holding their QSL cards.

In its work, the Federation draws extensively upon the Krenkel Central Radio Club of the USSR.

Local radio sport federations based on radio clubs are also set up in the various autonomous republics, territories and regions throughout the USSR. Since 1962, the USSR Federation of Radio Sport has been a member of the International Amateur Radio Union, and takes an active part in the work of the IARU Region 1.

The Federation, the USSR Central Radio Club and the magazine Radio hold annually several nationwide shortwave competitions, three USSR championships and the international CQ-M Contest, whose motto is "Peace to the World".

The CQ-M Contest began in 1957, and now traditionally takes place every year in the second week of May. All foreign participants get souvenir badges. Once in three years, the USSR Federation of Radio Sport, on behalf of the IARU Region 1, holds international competitions in shortwave telegraph communications, to contest the cup of the first cosmonaut Yuri Gagarin.

(To be continued in a later issue)

TRIAL EXAMINATIONS AVAILABLE

Candidates for amateur examinations can now be better prepared and confident by testing themselves with a trial examination. No matter where a candidate is in Australia, they can obtain a trial theory or regulations examination by mail order.

The questions used in the trial papers are typical of those in the "real" examinations. The candidate attempts the trial paper under examination conditions in their own home and then returns the answer sheet for marking. The marking is part of the service and readily helps the candidate identify those areas of weaknesses which need more study.

The cost of the theory trial examinations (specify whether you want the Novice or AOCP version) is \$12 while the regulations paper is \$8.

Applications should be sent to:
Trial Examinations
WIA Victorian Division
38 Taylor Street
Ashburton Vic 3147

"AHH, YOSHI- WOULD YOU REPEAT ALL BEFORE,
'WAKARIMASUKA, DOZO'?"



AMATEUR RADIO IN THE USSR (PART 2)

This is second in a two part series written for the WIA journal, *Amateur Radio* magazine, by Yury Zolotov UA3HR, a prominent member of the USSR Federation of Radio Sport in Moscow. Yury is well-known for his work in 1988 when he kept contact with the Soviet-Canadian trans-polar expedition Part 1 was in the August issue..

Licensing In The USSR

Licences are issued for amateur collective (club) stations and to individuals to operate their own amateur station.

Collective stations have three grades or categories of licence while individual stations have four categories. Three of the individual station categories are granted to radio amateurs who have reached 16 years of age, while the 4th category is available from the age of 14.

The right to operate a collective station can be granted even to 12 year olds who have observer call signs.

Licences to operate an amateur radio station in the USSR are issued in two steps. The first includes qualification examinations for electricity and radio engineering, safety, rules of amateur radio communications, and also sending the telegraph code and receiving it by ear. The 4th category needs only an interview without a test in Morse.

Examinations and interviews are arranged by qualification commissions of local radio sports federations of clubs or clubs of the Voluntary Society for Assisting the Armed Forces.

Each category has allocated bands, specific types of communications and maximum transmitter outpower power (see table).

Radio amateurs pay nothing for examinations, formalities and licences. Every shortwave radio amateur pays 3 roubles to his club annually — his membership dues. There are no taxes (licence fees) on radio activities.

Hobby Benefits From Glasnost

The development of glasnost (openness) and democratisation in the country in recent years has brought some changes to the rules of operating amateur stations.

You may have already noticed some Russian stations giving their own address during contacts. A previous ban on contacts with certain countries, such as

Israel, has now been lifted.

And all categories of licence are now allowed to work all DX countries, removing a previous restriction on DX working.

QSL cards can be received at one's home address, ending the long standing ruling that cards had to go only through

the QSL Bureau of the USSR Central Radio Club.

Gear Mostly Homebrew

Soviet radio amateurs are allowed to experiment with such forms of communi-

Continued on page 30

Table 1

Frequency bands, permissible outputs and types of communications allowed for Soviet radio stations

Station category	Output W	Band kHz	Type of Communication
4th category individual stations	5	1830-1930	CW
		1860-1930	SSB
		1900-1930	AM
3rd category individual and collective stations	5	1830-1930	CW
		1860-1930	SSB
		1900-1930	AM
	10	3500-3650	CW
		21000-21150	CW
		28000-29700	CW
2nd category individual and collective stations	5	28200-29700	SSB
		28800-29200	AM
		VHF bands	
	5	1830-1930	CW
		1860-1930	SSB
		1900-1930	AM
	50	3500-3650	CW
		3600-3650	SSB
		7000-7100	CW
		7040-7100	SSB
		14000-14350	CW
		21000-21450	CW
		21150-21450	SSB
		28000-29700	CW
		28200-29700	SSB
		28800-29200	AM
1st category individual and collective stations	5	VHF bands	
		1830-1930	CW
		1860-1930	SSB
	10	1900-1930	AM
		3500-3650	CW
		3600-3650	SSB
		7000-7100	CW
		7040-7100	SSB
		10100-10150	CW
		14000-14350	CW
		14100-14350	SSB
		21000-21450	CW
		21150-21450	SSB
	200	28000-29700	CW
		28200-29700	SSB
		28800-29200	AM
VHF bands	5	VHF bands	

VHF bands

144-146 MHz, 430-440 MHz, 1260-1300 MHz, 5650-5670 MHz, 10-10.5 GHz, 47-47.2 GHz, 75.5-76 GHz, 119.98-120.02 GHz, 142-149 GHz and 241-250 GHz.

ications as packet radio, and organise computer-based information networks.

It is a safe bet to say that 99 per cent of all radio amateurs use home-made transmitters or transceivers.

Only a few groups use professional industrial-type radio stations, a poor substitute for amateur sets. As for imported transceivers, there are only a few of them in the country.

It is extremely difficult to buy thin-walled tubes of light alloy metal for making aerials.

This explains the wide use of the double-square (cubical quad) aerials, using wooden poles and wire which are easily available.

Lack of amateur radio equipment hampers radio amateur activities in the schools. School stations are few and far between, although schoolboys of all grades are eager to take up radio as a hobby.

Their progress, if any, is due to individual radio amateurs who mainly work in schools on a voluntary basis.

Even so the amateur radio movement is very popular and not confined to amateur communications.

Nationwide exhibitions of home-made radio devices are held regularly, once every two years.

Hundreds of exhibits show amateurs' ingenuity in various fields: radio communications, computer technology, instruments for industry, science, medicine, and agriculture.

A large number of exhibits are designed to help with studies at school, college or university.

Usually there are many domestic radio sets as well as control and measuring instruments. Special juries award the best exhibits diplomas and valuable prizes.

ar

CALLING VIETNAM VETERANS

A net for those associated with the Vietnam War is held on 14.330 +/- QRM at 0000 UTC each Sunday (Monday in VK).

Called the "Nam Net" it's attracting both former Military Affiliate Radio System (MARS) Vietnam Operators and war veterans who are radio amateurs.

MARS handled hundreds of thousands of third-party traffic messages via RTTY and phone-patch between Vietnam and the US. It still provides the link for US service personnel usually on authorised frequencies just outside the 10, 15 and 20-metre bands.

ML

UA3HR

Yuri Zolotov



2019